



Office of Agricultural Education
New Jersey Department of Agriculture
Division of Agricultural and Natural Resources
P.O. Box 330
Trenton, NJ 08625-0330

In cooperation with the
New Jersey Department of Education
Phone: 1.877.AgEdFFA Fax: 609.633.2421

MEMO

DATE: March 12, 2004

TO: Agricultural Education Teachers/FFA Advisors

FROM: Nancy J. Trivette, *Program Leader, Agricultural Education*
Robin C. McLean, *State FFA Specialist*

RE: Forestry Career Development Event

The Delaware FFA Association will be hosting the Forestry Career Development Event on Friday, May 14, 2004 at the Ulysses Washington Extension Building on the campus of Delaware State College. Registration for the event will begin at 11:30 am and the Forestry CDE will begin at noon. This event will serve as New Jersey FFA's qualifying event for national competition. Please **pre-register** your teams with the New Jersey Office of Agricultural Education by **April 15, 2004**. We will register your team(s) with Delaware FFA.

This year's team event will be "Measuring for Board Foot Volume". Ten trees will be measured for board foot volume. The score sheets for the CDE components are included with this announcement. In addition to the team event, components will be:

1. 50 question multiple choice exam
2. 20 forestry equipment identification specimens
3. 20 forestry tree identification specimens
4. 10 map interpretation questions
5. 10 flag-to-flag compass reading and distance measurements
6. 10 – 15 forestry disorder/ disease identification specimens
7. 20 chain saw parts identification

Students must provide their own pencil, compass, tree sticks, work shoes, hard hats and rain gear if needed.

The Forestry teams shall consist of four dues-paid members. A \$7.00 registration fee per contestant or \$28.00 fee per contest team will be assessed for each chapter participating. Please use the online form to register for these events. Registrations must be emailed to ag.ed.registration@ag.state.nj.us. Payment should be forwarded IMMEDIATELY! Make checks payable to the Treasurer, State of New Jersey. Checks may be mailed to: Office of Agricultural Education, New Jersey Department of Agriculture, PO Box 330, Trenton, NJ 08625-0330.

2004 National Forestry CDE

Student Name

Measuring for Board Foot Volume

FFA Chapter Name

Using your measurements and the chart at the bottom of the page, place the correct numbers in the chart below.

| Tree No. | DBH-Diameter Breast Height | Merchantable Tree Height in 16 foot logs | Board Foot Volume | Score |
|----------|-------------------------------|--|----------------------|--------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| | | | | Total |

TREE SCALE- International ¼ inch

| DBH (inches) | Number of 16-Foot Logs | | | | | | | |
|-----------------|------------------------|-----|------|------|------|------|------|------|
| | ½ | 1 | 1 ½ | 2 | 2 ½ | 3 | 3 ½ | 4 |
| | Contents in Board Feet | | | | | | | |
| 12 | 30 | 60 | 80 | 100 | 120 | | | |
| 14 | 40 | 80 | 110 | 140 | 160 | 180 | | |
| 16 | 60 | 100 | 150 | 180 | 210 | 250 | 280 | 310 |
| 18 | 70 | 140 | 190 | 240 | 280 | 320 | 360 | 400 |
| 20 | 90 | 170 | 240 | 300 | 350 | 400 | 450 | 500 |
| 22 | 110 | 210 | 290 | 360 | 430 | 490 | 560 | 610 |
| 24 | 130 | 250 | 350 | 430 | 510 | 590 | 660 | 740 |
| 26 | 160 | 300 | 410 | 510 | 600 | 700 | 790 | 880 |
| 28 | 190 | 350 | 480 | 600 | 700 | 810 | 920 | 1020 |
| 30 | 220 | 410 | 550 | 690 | 810 | 930 | 1060 | 1180 |
| 32 | 260 | 470 | 640 | 790 | 940 | 1080 | 1220 | 1360 |
| 34 | 290 | 530 | 730 | 900 | 1060 | 1220 | 1380 | 1540 |
| 36 | 330 | 600 | 820 | 1010 | 1200 | 1380 | 1560 | 1740 |
| 38 | 370 | 670 | 910 | 1130 | 1340 | 1540 | 1740 | 1940 |
| 40 | 420 | 740 | 1010 | 1250 | 1480 | 1700 | 1920 | 2160 |

2004 National Forestry CDE

Equipment Identification

Student Name

FFA Chapter Name

Place the correct number in the blank to the left of each named piece of equipment.

- | | |
|------------------------------------|----------------------------------|
| _____ Tree Stick | _____ Canthook |
| _____ Diameter Tape | _____ Chainsaw |
| _____ Increment Borer | _____ Safety Hard Hat |
| _____ Bark Gauge | _____ Chainsaw Chaps |
| _____ Tree Caliper | _____ Safety Glasses |
| _____ Pulaski Forester Axe | _____ Altimeter |
| _____ Stereoscope | _____ Talley Meter |
| _____ GPS Receiver | _____ Fiberglass Measuring Tape |
| _____ Soil Sampler | _____ Fire Rake |
| _____ Wheeler Caliper | _____ Drip Torch |
| _____ Wedge Prism | _____ Data Recorder |
| _____ Relaskop | _____ Fire Weather Kit |
| _____ Staff Compass | _____ Talley Book |
| _____ Hand Compass | _____ Fire-Swatter |
| _____ Tree Planting Hoe or Bar | _____ Dot Grid |
| _____ Log Rule | _____ Backpack Fire Pump |
| _____ Planimeter | _____ Plant Press |
| _____ Survey Instrument(some type) | _____ Flow/Current Meter |
| _____ Hip Chain | _____ Soil Test Kit(some type) |
| _____ Plastic Flagging | _____ Water Sampler |
| _____ Tree Marking Gun | _____ Densiometer |
| _____ Logger's Tape | _____ Water Test Kit |
| _____ Clinometer | _____ pH Meter |
| _____ Hypo-Hatchet | _____ Hand Lens/Field Microscope |

2004 NATIONAL FORESTRY CDE

Tree Specimen Identification

Student Name

FFA Chapter Name

_____ spruce
_____ white pine
_____ red oak
_____ white oak
_____ maple
_____ hemlock
_____ ash
_____ cedar
_____ birch
_____ aspen
_____ Douglas-fir
_____ loblolly pine
_____ elm
_____ bald cypress

_____ long leaf pine
_____ sweetgum
_____ sycamore
_____ yellow-poplar
_____ black walnut
_____ cottonwood
_____ hickory
_____ beech
_____ ponderosa pine
_____ lodgepole pine
_____ shortleaf pine
_____ red pine
_____ pecan
_____ alder

2004 NATIONAL FORESTRY CDE

Map Interpretation

Student Name

FFA Chapter Name

Multiple Choice (A, B, C, or D)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

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Map Identification.doc

2004 National Forestry CDE

Compass-Pacing Practicum

Student Name

FFA Chapter Name

Five points are awarded for the correct distance in feet and the correct azimuth reading for each marked point. A one point deduction will be taken for each 2 degrees and/or each 2 feet that the contestant is off from the correct answer.

Flag 1 to Flag 2: _____ feet; _____ bearing

Flag 2 to Flag 3: _____ feet; _____ bearing

Flag 3 to Flag 4: _____ feet; _____ bearing

Flag 4 to Flag 5: _____ feet; _____ bearing

Flag 5 to Flag 6: _____ feet; _____ bearing

Flag 6 to Flag 7: _____ feet; _____ bearing

Flag 7 to Flag 8: _____ feet; _____ bearing

Flag 8 to Flag 9: _____ feet; _____ bearing

Flag 9 to Flag 10: _____ feet; _____ bearing

Flag 10 to Flag 1: _____ feet; _____ bearing

2004 NATIONAL FORESTRY CDE

Forest/Tree Disorder Identification

Student Name

FFA Chapter Name

| | | | |
|-------|---------------------------|-------|--|
| _____ | Aphid | _____ | Canker |
| _____ | Scale | _____ | Sunscald |
| _____ | Gypsy moth | _____ | Damping off |
| _____ | Douglas-fir tussock moth | _____ | Mistletoe |
| _____ | Spruce budworm | _____ | Wetwood or slime flux |
| _____ | Spider mite | _____ | Chemical damage |
| _____ | Cicada | _____ | Tent caterpillar |
| _____ | Leaf spot | _____ | Mechanical damage |
| _____ | Beetles | _____ | Landscape equipment damage |
| _____ | Wood borer | _____ | Girdling roots |
| _____ | Wildlife/livestock damage | _____ | Fire damage |
| _____ | Needle cast | _____ | Climatic injury: snow, wind, frost, drought, hail |
| _____ | Sawfly | _____ | Nematode |
| _____ | Air pollution | _____ | Rust |

2004 National Forestry CDE

Student Name

Chainsaw Parts Identification

FFA Chapter Name

Place the number of the labeled part in the correct space below

- _____ saw chain
- _____ drive link
- _____ left hand cutter
- _____ right hand cutter
- _____ pre set side link
- _____ side link
- _____ chain bar
- _____ chain drive sprocket
- _____ clutch drum
- _____ carburetor assembly
- _____ air filter element
- _____ spark plug
- _____ coil armature
- _____ connecting rod
- _____ connecting rod cap
- _____ crankshaft
- _____ piston rings
- _____ piston
- _____ piston pin
- _____ crankcase
- _____ cylinder
- _____ starter housing
- _____ flywheel
- _____ fuel filter
- _____ fuel tank
- _____ chain break handle/lever
- _____ brake band
- _____ screen/spark arrestor
- _____ chain tensioner
- _____ trigger assembly
- _____ front handle